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UNIVERSITY OF ALBERTA

ALCOHOLIC BEVERAGE ADVERTISING: AN ANALYSIS OF VIEWER RESPONSES

BY

IRENE WNEK

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH IN

PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF EDUCATION

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

EDMONTON, ALBERTA

SPRING, 1990

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SUBMITTED BY: Irene Wnek

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF EDUCATION.

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DATE: March 8, 1990

Abstract

In reviewing the literature which addresses the effects of alcoholic beverage advertising, it becomes apparent that the primary concern has been with the relationship between advertising exposure and alcohol consumption. Investigations of this nature have used a variety of approaches, but have yielded inconclusive findings. That is, while in some cases a positive relationship between exposure and consumption has been demonstrated, in others, no such relationship has been found.

The present study addresses two major gaps in previous alcohol advertising studies. First, consistent with information processing theory, this research considers recipients of advertising communications to be active information processors. As such, the present research explores the influence of recipient-generated thoughts or cognitive responses to advertising messages, in place of mere exposure to such messages. Second, in addition to considering the potential effects of advertising on alcohol consumption, the current study explores the influence that advertising may have on alcohol expectancies, defined as beliefs concerning the consequences of drinking alcohol.

Five hypotheses investigating relationships between familiarity with advertising, responses to advertising,

alcohol expectancies, and alcohol consumption are examined. Based on a sample of undergraduate university students, results suggest that both familiarity with advertising and cognitive responses to advertising are positively related to alcohol expectancies as well as alcohol consumption. Further, the observed relationships are rather complex. Specifically, alcohol expectancies were found to influence the relationship between cognitive response variables and alcohol consumption. As well, the relationship between familiarity with advertising and both alcohol consumption and alcohol expectancies was influenced by cognitive responses.

The research findings reveal that a number of factors in addition to advertising exposure must be considered in studying the effects of alcoholic beverage advertising. In particular, support is offered for the view that message recipients must be recognized as active information processors whose cognitive responses to messages may be influencing advertising effects. Furthermore, the results of this study demonstrate that alcohol advertising may relate to factors other than alcohol consumption, most notably, alcohol expectancies.

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Table 6. Relationship Between Familiarity with Advertisements, Alcohol Consumption, and Cognitive Responses.....47

I. Introduction

The advertising of alcoholic beverages poses an intriguing challenge for those who view the issue from a public health perspective. Specifically, while the health risks and societal costs associated with alcohol abuse are well documented, the product is still widely sold and promoted (Orlandi, Lieberman & Schinke, 1988). This apparent contradiction has spurred interest in studying possible effects of alcoholic beverage advertising, with particular attention to any connection between alcohol consumption levels and product advertising.

From the perspective of the alcoholic beverage industry, not only do their promotional efforts adhere to existing advertising regulations, but the expressed objectives of their campaigns specifically exclude increasing alcohol consumption levels. In fact, the industry argues that their efforts are focused on establishing brand loyalty among current consumers of their product, and encouraging brand switching (vanIwarden, 1983). As well, the industry correctly observes that research to date has established no direct causal connection between advertising and consumption of alcoholic beverages.

Research efforts in the area have been heavily focused on attempting to investigate just such a connection. Typically, the relationship of interest has been one between

advertising exposure and alcohol consumption. Using a variety of approaches, findings concerning this relationship have been inconclusive. That is, although a causal connection between the two has clearly not been established, some correlational studies reveal a moderate relationship between advertising exposure and alcohol consumption, while others find no such relationship. Such inconsistencies may, in part, be due to the fact that a rather complex problem is being studied from a somewhat narrow perspective. For example, potential effects of advertising on factors other than consumption have been largely ignored. As well, in spite of both methodological and conceptual concerns in measuring advertising exposure, this variable continues to receive considerable attention to the exclusion of other important factors. Specifically, such factors include the interpretation and processing of advertisements and their intended messages by viewers, rather than mere exposure to such messages.

The current research study addresses the issue of alcohol advertising effects from a slightly but significantly different perspective. It is intended to contribute to existing empirical findings and theoretical issues in the area of alcohol advertising in a number of ways. First, the theoretical frameworks guiding this research include information processing theory and cognitive response theory. These frameworks emphasize the role of the

viewer as an active information processor rather than a passive recipient of information. Within this view, both message-generated and self-generated thoughts are important in understanding messages.

Consistent with this theoretical orientation, rather than focusing solely on the effects of advertising exposure, which have already been well studied, the present research also considers the effects of viewers' cognitive responses to alcohol advertisements. Cognitive responses are defined as those thoughts that occur to a person prior to, during or after a communication (Petty, Ostrom & Brock, 1981). These thoughts are predicted by cognitive response theory to serve as significant mediators of the impact of advertising effects.

Finally, the present investigation considers the potential effects of advertising not only on alcohol consumption, but on one well documented correlate of consumption, alcohol expectancies. Alcohol expectancies refer to the "anticipated consequences of drinking alcohol" (Christiansen, 1981, p.2). Research has rather consistently revealed a positive relationship between this variable and alcohol consumption. In light of the lifestyle approaches used in promotional efforts by alcohol advertisers, it is reasonable to predict some effect on alcohol expectancies.

After providing a review of the existing literature pertaining to theoretical issues and empirical findings in

the area of alcoholic beverage advertising, the rationale for the present study will be clarified and the specific hypotheses to be investigated will be stated. Next, the methods and procedures used in the study will be described, along with a discussion of some of the limitations of the study. Research findings will be provided in a fourth section, while the final section will include a discussion of these findings.

II. Review of the Literature

Theoretical Frameworks

The major explanatory framework to guide research in the area of alcohol advertising has been social learning theory. Following a description of the principles and relevance of this theoretical orientation for alcohol advertising effects, discussion of a second framework, information-processing theory, will be presented.

Social learning theory organizes both interpersonal and advertising effects within a single explanatory framework. Drinking behaviors are considered to be learned throughout the socialization process, and are influenced by the environments that affect that process. Both experience and observation play important roles in this learning process. With respect to media and advertising effects, social learning theory has been considered especially appropriate (Strickland, 1983) since it emphasizes observation, which is a major explanation for potential effects of advertising, as a principal learning mechanism.

Strickland and Pittman (1984) describe three core principles of social learning theory that are especially relevant in studying influences on alcohol-related behaviors. First, behavior is regulated by consequences in terms of a balance between reward and punishment.

Acquisition and maintenance of drinking behaviors is more likely if they are associated with likely or anticipated rewards. Secondly, behavior can be learned observationally. In addition to direct reinforcement, vicarious reinforcement resulting from observation of others' drinking behavior and its consequences serves as a learning mechanism. The third core principle of social learning theory states that symbolic or cognitive representation of behavior allows rehearsal and anticipation of consequences to occur even in the absence of immediate opportunity to engage in the behavior.

These three core principles suggest that both interpersonal and media influences could affect drinking behaviors. Family and peers control sources of reinforcement and serve as behavior models, while media portrayals of alcohol use provide symbolic modeling of behavior and vicarious reinforcement. Social learning theory would, however, predict primacy of interpersonal over media influences for three reasons (Strickland & Pittman, 1984). First, people with whom one regularly associates display behaviors that are seen often, and thus, are likely to be learned. Secondly, approval or disapproval by those who control rewards or punishments is more influential than similar expressions by media models. Finally, media relies on its ability to activate vicarious reinforcement. For

maintaining behaviors over time, directly experienced consequences have a greater impact.

Although social learning theory acknowledges that cognitive processes can play a role in influencing behavior, the primary focus is on real or anticipated consequences of behavior. In contrast, information-processing theory considers cognitive and perceptual processes that are used to acquire and use information. One such model (McGuire, 1976) describes eight stages of information processing, including exposure, attention, comprehension, agreement, retention, retrieval, decision-making and action. Only one of these stages, exposure, has been addressed by those studying alcohol advertising effects.

Consistent with information processing theory, a cognitive response approach to studying advertising effects suggests that viewers are active information-processors generating their own responses to a message (Tybout, Sternthal & Calder, 1978; Petty & Cacioppo, 1981). It is these responses and reactions to advertising that are predicted to be significant contributors to the restructuring of belief systems (Wright, 1974) and mediators of attitude change (Olson, Toy & Dover, 1982). Specifically, cognitive response theory is concerned with what happens between message input and possible attitudinal or behavioral outcomes. This view holds that the meaning of advertising is less dependent on the actual content of a

message than it is on the viewer's interpretation of and response to that content. Message recipients do not rely solely on the information presented, but actively generate and rehearse their own thoughts and ideas concerning a persuasive communication, incorporating previous experience and knowledge. Within this view, cognitive responses to a message are generally defined as "all of the thoughts that pass through a person's mind while he or she anticipates a communication, listens to a communication, or reflects on a communication" (Petty, Ostrom & Brock, 1981, p.7). Cacioppo, Harkins and Petty (1981) explain further that cognitive responses consist of associations, elaborations, ideas and images which are the result of information processing and structuring activities.

Information-processing theory and more specifically, a cognitive response perspective warrant investigation in the area of alcohol advertising, and are proposed to guide the present research. Further elaboration of this approach will be provided in the rationale for this study, and the discussion of the methodology and procedures that were used. First, a description of existing research findings in the area of alcohol advertising will be presented.

Empirical Findings Concerning Alcohol Advertising

The following review includes studies that have addressed the potential effects of alcoholic beverage

advertising on viewers. This review is intended to provide some background concerning research approaches that have been used to understand the effects of such advertising, and the findings which have resulted.

Existing studies investigating alcohol advertising effects have used four basic approaches. Correlational studies examine how naturalistic exposure to advertising relates to alcohol consumption. Experimental studies manipulate advertising exposure to observe effects on consumption. Econometric studies assess the impact of factors such as advertising expenditures on aggregate demand for alcohol, and finally, studies of advertising bans and restrictions investigate the resulting effects on consumption.

Studies using each of these approaches will be described below.

Correlational Studies

One approach for investigating the effects of alcohol advertising exposure is to survey a sample of respondents, obtaining measures of both naturalistic advertising exposure and drinking patterns, and then calculating the degree of relationship between these two variables.

Atkin, Hocking and Block (1984) used a correlational design to investigate the predicted positive relationship between amount of advertising exposure and alcohol consumption among adolescents. Their sample consisted of

665 adolescents from grades seven through twelve who completed questionnaires which assessed their drinking behavior and exposure to alcohol advertising. In addition, interpersonal influences of peers and parents, and other media factors were also considered. Advertising exposure (.34) was followed by peer influence (.26) as the best predictor of liquor consumption. The strongest correlates of beer drinking were peer influence (.43) and advertising exposure (.20), while for wine drinking, the only predictors to achieve significance were peer and parental influence with respective correlations of .24 and .14. When alcohol advertising exposure indexes were dichotomized at the median, the high exposure half of the sample scored higher on total consumption measures, different brands consumed and plans to drink in the future.

Strickland (1983) emphasizes the need to distinguish between consumption and abusive consumption in considering the effects of advertising. In his own study, he sampled students from grades 7, 9 and 11 to explore the relationship between television advertising exposure, alcohol consumption, alcohol abuse and other possible influences on alcohol use including peers and parents. His results demonstrated that only 1.4% of the variance in measures of consumption was uniquely associated with advertising exposure. Similarly, for only one of five alcohol abuse measures was there a very small significant relationship

with exposure. Specifically, one half of one percent of the variance in negative behavior consequences of drinking was associated with exposure, and all of that effect was a function of consumption. Interestingly, a small but statistically significant inverse relationship between exposure and frequency of intoxication was found. A number of other relationships between exposure and measures of abuse were also negative, but did not reach significance.

In contrast to the lack of relationship between exposure and alcohol use and abuse, Strickland (1983) did find significant effects of differential peer association on every measure of consumption and abuse. In fact, approximately three times as much of the variation in drinking could be associated with peer association as with advertising exposure. Similarly, peer attitudes toward drinking had significant effects on all drinking outcome measures. Based on these findings, the author concludes that decreased advertising of alcohol beverages would have minimal impact on either alcohol consumption or abusive consumption.

The contradictory findings reported by Strickland (1983) and Atkin, Hocking and Block (1984) may, in part, be attributable to the measures used to assess advertising exposure. Strickland assessed exposure only to television advertising, while the other investigators also included exposure to magazine advertising. Strickland (1984)

subsequently criticized the Atkin et al. studies, citing five major problems, including sampling bias and invalid exposure measures. These factors may also have accounted for the discrepant findings. Importantly, however, in interpreting the results of both studies one must bear in mind that the effects of advertising were measured solely as a function of exposure. Most existing studies, including the following, similarly focus only on advertising exposure.

Atkin, Neuendorf and McDermott (1983) considered the issue of advertising and alcohol abuse. Specifically, their focus was on the impact of advertising on excessive and hazardous drinking. A sample of 1,227 respondents, most of whom were between the ages of 12 and 22, were surveyed regarding a number of alcohol-related variables, including a heavy drinking index and a drinking and driving index. Results indicated that advertising exposure correlated modestly but significantly with heavy drinking (.22) and drinking driving (.18) indexes after interpersonal and demographic factors had been controlled. In both cases, a slightly smaller relationship remained after drinking was partialled out, suggesting that the impact of advertising may extend to more accepting attitudes toward increased consumption. Importantly, high exposure individuals were more likely to have driven after drinking (39%) than were low exposure individuals (25%). Thirty-nine percent of the high exposure group also reported driving while drunk

compared with 28% of the low exposure group. Similar patterns were found for measures of drinking while riding or parked in a car.

Atkin (1984) presents data from one of few studies that addresses the impact of advertising on alcohol-related attitudes as assessed by a 50-item attitudinal index. Advertising exposure was found to be moderately related to the attitude index (.27). Specifically, about one-third of high exposure individuals compared with one-fifth of low exposure respondents agreed that it was okay for teens to get drunk. Similarly, the high exposure group was more likely to believe that alcohol aids relaxation, and these individuals were more likely to accept a number of different situations as appropriate for alcohol consumption.

In summary, the results of correlational studies provide inconclusive and even contradictory evidence concerning the relationship between advertising and drinking behaviors. In some cases, modest positive relationships between advertising exposure and alcohol consumption have been demonstrated, while in others, no such relationship has been found. Studies have relied heavily on advertising exposure as the independent variable of interest, and have similarly utilized alcohol consumption and related behaviors almost exclusively as the dependent variables.

Experimental Studies

Two main experimental studies were designed to investigate the relationship between exposure to advertising and consumption. In both cases, exposure to advertising was manipulated in a laboratory setting where alcoholic beverages were also available. The question of interest was whether increased exposure to advertising resulted in higher levels of alcohol consumption.

In one experimental study, Sobell et al. (1986) examined effects on drinking of a television program with or without alcohol scenes and alcohol advertisements embedded in the program. Subjects were 96 male students who were led to believe that they were participating in two separate studies, one dealing with prime-time television programming and the other dealing with light beer taste tests. Subjects viewed a television program either with or without alcohol scenes, and containing advertisements for either beer, non-alcoholic beverages or food. After viewing the program, subjects were asked to perform taste tests of light beer, with amount consumed serving as the dependent variable. A post-experimental debriefing session allowed the experimenters to eliminate data for those subjects who either suspected that the two studies were linked, or who were suspicious of the motive of the study.

The major finding of the Sobell et al. study was that neither the presence of drinking scenes nor beer commercials

within the program increased drinking levels of participants. The authors agree that their results must be interpreted with caution, since generalization of findings from a male population of normal drinkers is questionable. In addition, subjects viewed the program in isolation during the day rather than a social setting during the evening, making the situation somewhat artificial. Finally, since drinking was tested immediately and only after a single exposure, potential delayed effects could not be discounted.

In a second experimental study conducted by Kohn and Smart (1984) male subjects were asked to compare the viewing appeal of indoor soccer with football. Investigators manipulated the number of beer commercials that were embedded in the program (0, 4, or 9) and offered access to beer as a refreshment either immediately or after a 30 minute delay. Results suggested that, in general, amount of advertising had no significant effect on consumption. However, there was some indication that consumption was briefly stimulated, as those subjects viewing three advertisements within 30 minutes drank more during the first half hour than subjects who saw no advertisements. Further exposure did not result in further increases in consumption. Similarly, although delayed access led to an initially higher consumption level when beer became available, overall, delay had no effect on consumption.

The findings of the two major experimental studies reported here are somewhat consistent in their major conclusions that, in general, advertising exposure does not increase drinking among viewers. However, as was the case with correlational studies described earlier, these experimental studies have relied upon measures of exposure and consumption to the exclusion of other potentially important variables. As well, because of the somewhat artificial conditions under which these studies were conducted, generalizability of the findings is questionable.

Econometric Studies

The typical approach used in econometric studies involves relating dollar sales of alcohol with dollars spent on advertising. Although some potentially useful information can be revealed through this approach, the use of aggregate statistics precludes investigation of advertising effects on specific groups of individuals. Similarly, reliance on advertising expenditures and alcohol sales statistics raises questions concerning the reliability and validity of the data obtained. As Atkin (1984) points out, in aggregate analyses, actual drinking is not measured and the quantity and quality of advertising is not assessed directly. Importantly, there is also no way to examine effects on abusive consumption or alcohol-related attitudes.

Bourgeois and Barnes (1979) observed no significant relationship between advertising measures and total per

capita consumption of absolute alcohol in Canada. Neither price of alcoholic beverages nor advertising expenditures significantly predicted consumption levels. Ogborne and Smart (1980) similarly reported that there was no contribution of the size of advertising budgets to sales of individual alcohol products.

vanIwaarden (1985) points out that consumers do not react to increases in advertising budgets, but producers do react to shifts in per capita consumption. On average, for example, a 10% increase in advertising expenditures might result in an increase of about 1.5% in demand. This indicates that level of sales may be a predictor of how much is spent on alcohol advertising. In fact, Picconi and Olson (1978) found that over half of leading consumer goods advertisers use predicted sales to determine advertising budgets and one-fifth use past sales as guides. Results such as these are suggestive of the direction of the causal relationship, if any, between advertising and consumption. That is, the extent of advertising may be reflecting rather than influencing levels of consumption in the population.

Blane and Hewitt (1980) conclude that "what is known about advertising in relation to sales and marketing leads to no clear-cut conclusions concerning its effects on consumption" (p.11). Further, they state that "whether advertising follows the market or the market follows advertising is again an open question" (p.11). Existing

information, however, seems to suggest that advertising expenditures are unrelated alcohol consumption levels.

Advertising Restrictions

Questions concerning the impact of restricting alcohol advertising are of particular interest to policy makers and legislators who are responsible for regulating such advertisements. Four basic policy alternatives with respect to product advertising have been described (vanIwaarden, 1983). First, the alcohol industry can be forced or persuaded to implement certain restrictions concerning advertising content or volume. Second, alcohol advertising could be taxed, based on the view that at the very least it is socially wasteful. Third, efforts to promote health could be increased, assuming that health messages would have some positive impact on the public. As well, to the extent that such efforts utilized media channels, they could possibly offset effects of advertising by the alcohol industry. Finally, a partial or total ban of alcohol advertising could be implemented. However, serious consideration must be given to the potential negative consequences associated with such a measure, including increased competition within the industry with respect to prices, resulting in higher sales.

Studies addressing the effects of these policy alternatives are limited. Restrictions that have been implemented have been confined to a specific geographic

area, a particular class of products or a specific type of media. As such, resulting effects on consumption must be interpreted with caution.

In 1974, new regulations concerning alcohol advertising in Manitoba led to the removal of all beer advertisements from electronic and print media. Advertising from outside the province was not subject to such regulations. A time series analysis (Ogborne & Smart, 1980) for the four years preceding and following the new regulations revealed no decrease in beer consumption as a function of advertising restrictions. In fact, beer consumption increased to approximately the same extent as in the control province of Alberta. Similarly, a 14 month ban on radio and television advertising in British Columbia in 1976 had no effect on per capita consumption (Smart & Cutler, 1976).

Ogborne and Smart (1980) conclude that it "seems unlikely that restrictions on advertising will reduce per capita consumption in the short run but if continued over generations, some impact might be felt. Such restrictions should be given a low priority among the possible solutions to problems of restraining per capita alcohol consumption" (p.295). Others, however, argue that the contradiction to public health goals that such advertising provides may be adequate reason to warrant concern and restrictions (Wallack, 1984).

Conclusions Concerning Advertising Effects

As the preceding review illustrates, the relationship between advertising exposure and alcohol-related behaviors has been rather well studied. In general, the following conclusions can be offered:

1. Correlational studies provide weak and contradictory evidence regarding the relationship between advertising exposure and alcohol consumption.

2. Experimental studies tend to show no significant impact of advertising on drinking. However, some short-term effects have been reported.

3. Econometric studies typically demonstrate no relationship between advertising expenditures and alcohol sales.

4. Advertising restrictions have little impact on per capita consumption, at least in the short-term.

Rationale for Current Research

As the preceding review illustrates, the effects of alcohol advertising exposure on alcohol consumption have been studied using a variety of approaches. There are however, some rather significant gaps in the types of investigations that have been conducted, and the variables that have been explored.

One such gap concerns the possible effects of alcohol advertising on factors other than consumption. As Lieberman and Orlandi (1987) suggest, environmental factors such as advertising may have their most direct effect on affective and cognitive variables rather than on behavior. Further, advertising may predispose individuals to drink through the development of positive attitudes toward drinking, and by normalizing drinking behavior. As such, perceptions of advertising become an important factor to be considered, especially in view of the positive portrayals and consequences of alcohol depicted in television advertisements.

Dorn and South (1982-83) agree that the qualitative aspects of consumption, as well as more well-studied quantitative factors, must be considered in alcohol advertising research. Such qualitative factors include meanings associated with alcohol, physical locations of use, social circumstances of use, and changing styles of consumption as opposed to levels of consumption. Consequences of alcohol use are associated not only with amounts consumed, but also expectations surrounding use.

Atkin, Neuendorf and McDermott (1983) also agree that the impact of advertising may extend beyond drinking to producing more accepting attitudes toward consumption. From a theoretical perspective, social learning theory would predict that observational learning from mass media is

likely to shape attitudes, beliefs and intentions, while actual behavior will be mediated by interpersonal influences (Strickland & Pittman, 1984).

In light of the widespread agreement concerning potential advertising effects on factors other than consumption, the scarcity of such research to date is surprising. Although an ultimate concern with the effects of alcohol advertising on alcohol consumption is understandable, the possible effects on other factors must be considered. One such factor, alcohol expectancies, will thus be investigated in the present study. Alcohol expectancies have been defined as the "anticipated consequences of drinking alcohol" (Christiansen, 1981, p.2). The relationship between expectancies concerning the effects of alcohol and actual alcohol consumption has been well documented (e.g. Christiansen, 1981). Specifically, a significant determinant of drinking behavior and consequences is the expectations which surround drinking outcomes. As such, the potential effect of advertising on alcohol expectancies warrants investigation.

A second limitation of existing research concerns the emphasis on advertising exposure. Numerous methodological problems in attempting to assess levels of advertising exposure make findings of such studies inconsistent and even questionable. Perhaps more importantly, however, are criticisms directed at mere exposure hypotheses. These

suggest that advertising researchers should be at least as concerned with message quality as with message repetition or quantity in all information-processing situations (Reid & Soley, 1980). As well, from an information-processing perspective, exposure is only one of a number of processing stages of importance. A number of other stages, including attention, retention and retrieval, may more accurately ensure that viewers have indeed been exposed to advertisements. Such measures are better able to assess actual familiarity with advertisements than do typical exposure measures. Finally, as suggested by cognitive response theory, the interpretations, elaborations and responses to messages by audience members may play a major role in advertising effects. Efforts to understand how viewers interpret and respond to alcohol advertising are lacking within the alcohol advertising field. Thus, the present study extends beyond studying mere exposure, incorporating measures of viewers' familiarity with and responses to alcohol advertisements as well.

The current research study is intended to address the two major gaps in previous alcohol advertising studies as described above. The main variables of interest are 1) familiarity with alcohol advertisements, 2) cognitive responses to alcohol advertisements, 3) alcohol expectancies, and 4) alcohol consumption. Familiarity with alcohol advertisements refers to actual recall of common

slogans that have been used in advertising campaigns, as well as "feeling-of-knowing" judgements for each of the slogans. Cognitive responses reflect the thoughts that viewers generate in response to alcohol advertisements, and their general attitudes toward such advertisements. Alcohol expectancies, or the anticipated effects of drinking alcohol, will be assessed using the Alcohol Expectancy Questionnaire designed specifically for this purpose (Goldman, Christiansen & Brown, in press). Finally, alcohol consumption will be estimated using a self-report measure of drinking behavior. Further descriptions of each of these measures are provided in the following section on methodology and procedures.

Specific hypotheses to be examined within this study include the following:

Hypothesis 1: Cognitive responses to alcohol advertisements will be positively related to alcohol expectancies.

Hypothesis 2: Cognitive responses to alcohol advertisements will be positively related to alcohol consumption.

Hypothesis 3: The positive relationship between cognitive responses and alcohol consumption will be influenced by the effects of alcohol expectancies.

Hypothesis 4: The relationship between familiarity with alcohol advertisements and alcohol expectancies will be influenced by cognitive responses.

Hypothesis 5: The relationship between familiarity with alcohol advertisements and alcohol consumption will be influenced by cognitive responses.

In order to investigate these hypotheses, the methodology described in the following section will be utilized.

III. Method and Procedures

Data Collection

All instruments were self-administered and were completed in group form during a portion of a regular class period. Participants were informed in general terms of the nature and purpose of the study, and were advised that their responses would be both anonymous and confidential. As well, they were advised to omit any items that they preferred not to answer.

Sample

The sample consisted of students in a third year undergraduate class in educational psychology at the University of Alberta. After hearing a brief description of the study, 157 students agreed to participate. Only one student opted not to participate, and left the classroom. The remaining students required between 10 and 30 minutes to complete their questionnaires.

Measures

The complete questionnaire consisted of two sections. The first was developed by the investigator, while the second consisted of the Alcohol Expectancy Questionnaire (AEQ) developed by Goldman, Christiansen and Brown (in

press). The complete questionnaire is contained in Appendix A. Each of the two sections is described in some detail below.

1. The first portion of the questionnaire was developed to assess viewer familiarity with and responses to alcohol advertisements, as well as their levels of alcohol consumption. Demographic information (age and sex) was also collected for the purpose of describing the sample.

Overall familiarity with television advertisements for alcoholic beverages was assessed as follows. First, subjects were asked to indicate how familiar they were with a list of slogans that have been used to advertise alcoholic beverages. Secondly, for each slogan, respondents were asked to identify the brand of the beverage with which the slogan was associated.

Three open-ended questions were included to assess viewers' cognitive responses to alcohol advertisements and their intended messages. A typical approach to understanding cognitive responses requires that subjects report either 1) thoughts elicited by a particular communication, 2) all thoughts that occurred during a particular communication, or 3) general thoughts on a topic of communication. Such measurements are generally requested during a communication or a short time afterwards (ranging from a few seconds to a few minutes).

Rather than employing this immediate cognitive response approach, the slightly modified approach used for the present research utilized a retained cognitive response measure. That is, subjects were requested to provide their thoughts on the general topic of television alcohol advertisements which they have viewed at some point in the past. Such an approach is consistent with cognitive response theory since it allows individuals to not only report their thoughts, but as well, acknowledges that message generated thoughts are integrated into existing knowledge structures, thus becoming integrated with recipient-generated thoughts. A major limitation of asking subjects to report only those immediate thoughts that were generated by some specific message concerns the assumption that subjects are able to differentiate between thoughts that are generated soley by a message and those that may be based on previous experience and knowledge. A retained cognitive response approach avoids this limitation.

To supplement responses to the open-ended questions used to assess cognitive responses, a series of Likert-type ratings were included to measure viewers' general responses toward television alcohol advertisements. The rationale for including these items is as follows. Television advertising for alcohol relies heavily on visual information, while cognitive processing is sometimes considered to more heavily utilize a verbal loop. As such, the amount of cognitive

processing generated by television alcohol advertising may vary. There is evidence, however, that an "attitude toward the ad" variable assesses responses that rely more heavily on a visual component. Thus, by incorporating both open-ended cognitive response measures, and Likert-type "attitude toward the ad" items, both types of responses can be measured.

Finally, a self-report item to assess levels of alcohol consumption was included.

2. The Alcohol Expectancy Questionnaire (AEQ) - Adolescent Form (Goldman, Christiansen & Brown, in press) was used in this study to assess alcohol-related expectancies, or the anticipated effects of drinking alcohol. The AEQ is a 90 item self-report questionnaire consisting of seven subscales: global positive changes, changes in social behavior, improved cognitive and motor abilities, sexual enhancement, cognitive and motor impairment, increased arousal and relaxation and tension reduction.

The adolescent form of the instrument was normed on inpatient alcohol treatment groups aged 12 to 19 and 1580 junior and senior high school students. Although an adult form of the questionnaire exists, the adolescent form was used for two reasons. First, it incorporates both negative and positive effects of alcohol consumption, while the adult form is restricted to positive effects. Secondly, questions

are worded in general terms to reflect general rather than personal alcohol expectancies. It is these more general expectancies that are of interest in the present study. Considerable overlap between the two forms of the test exists. Total scores correlate .60 ($p < .001$). Information concerning reliability and validity considerations is described below.

Internal consistency of the adolescent form as measured by coefficient alpha ranges from .47 to .82 with a mean of .72. Test-retest reliability for the two forms of the test over an eight week interval was estimated at .52.

With respect to criterion validity, the authors cite evidence demonstrating a relationship between alcohol expectancies and consumption. Alcohol expectancy scores were also found to facilitate prediction of drinking at a one year follow-up. In assessing discriminant validity, the AEQ was found to be independent of both social desirability and deviancy.

The scales of the AEQ are scored using a unit weight system, so that an individual's score is the number of statements to which he/she responded 'true'. Maximum scores for the subscales range from 4 to 24. Higher scores on the AEQ reflect positive expectations surrounding the use of alcohol. Lower scores reflect beliefs that the consequences of consuming alcohol are generally negative.

Data Analysis

All open-ended responses were first content analysed to form categorical data. Responses to the item requesting thoughts elicited by advertisements were coded into one of four categories: positive thoughts, descriptive or neutral thoughts, negative thoughts and a few miscellaneous other thoughts. The first three of these categories were subsequently included in further analyses. Other open-ended responses were categorized for descriptive purposes and will be reported as such in the section describing research findings.

The slogan matching task was scored as follows. Each complete and correct response received a score of two. This required that subjects supplied a correct brand name as well as any other descriptive information associated with the slogan. For example, the correct response of "Coors Light" to the slogan "Silver Bullet" would receive a score of two. Partially correct responses which included a correct brand name were assigned a score of one. In the previous example, a response of "Coors" would receive a score of one. Total points achieved in the slogan matching task were used in subsequent analyses, as were total points on the familiarity ratings given to each slogan by subjects.

Consumption of alcohol in a typical week was measured by combining subjects reported consumption of each of three types of alcoholic beverages.

With respect to the AEQ, scoring was completed as directed by the instrument's authors. That is, an individual's score was the number of "true" responses made. For one subscale, a number of false responses were weighted in the positive direction as indicated by the authors. Missing items in the AEQ were assigned a weight of .5. That is, missing responses were neither considered to be false (o weight) nor true (weight of one).

In addition to basic descriptive statistics, both Pearson Correlation and Analysis of Variance procedures were used for data analysis.

Limitations

A number of limitations of the present research can be identified.

First, because self-report measures are utilized, any limitations associated with self-report questionnaires may apply. Typically, these include potential concerns with reliability and validity of results.

Second, because the study does not utilize an experimental design, any relationships among measures cannot be interpreted as causal. The findings obtained in this non-experimental design, however, are more easily generalized to a number of naturalistic settings and conditions than are those typically found in laboratory-based experiments.

Third, with the exception of the Alcohol Expectancy Questionnaire, the measures used in this study have not been tested for reliability and validity. They were developed by the investigator and are deemed adequate for the purposes of this study. However, conclusions based on the measures employed here should be made cautiously.

Finally, two delimitations of the study should be emphasized. First, caution must be exercised in generalizing findings of the proposed study beyond the population sampled, that being undergraduate university students in educational psychology. The sample was chosen as a convenience sample, and is not necessarily representative of the general population. Similarly, because the study focuses on television advertising, results are not necessarily generalizable to other forms of advertising.

IV. Research Findings

The research findings are presented in two sections. First, a general description of participants' responses to individual survey items and the AEQ will be provided. Second, results of analyses addressing each of the five hypotheses will be presented.

General Findings

As described in Table 1, the sample consisted primarily of individuals under the age of 25 (75%), and females outnumbered males by a 3:1 ratio.

In general, respondents did rather poorly on the slogan matching task, with an average score of 6.8 out of a possible 28 points. A number of individuals received scores of zero (8.9%), while the highest score achieved was 24. When respondents were asked to rate their familiarity with each slogan on a five point scale where higher values indicated greater familiarity, total scores across all slogans ranged from 14 to 70, with an average of 46.2. Familiarity scores and slogan matching scores were positively related ($r=.64$, $p<.001$). As well, these two variables related in similar patterns to a number of other measures. Thus, subsequent analyses relied upon the slogan matching score to reflect viewers' general familiarity with television advertisements for alcoholic beverages.

When asked to reflect upon the types of thoughts that come to mind when thinking about alcohol advertisement, almost half of all respondents (45.4%) reported positive thoughts or feelings. Another third (31.6%) indicated more descriptive or neutral kinds of thoughts, while 23% had more negative reactions when they thought about alcohol advertisements. With respect to the types of messages that such advertisements are attempting to get across to viewers, over half of the sample (57.1%) felt that advertisers were associating drinking with a number of desired states, including good times, good feelings, popularity, romance, and generally positive lifestyles. Twenty-one percent of respondents suggested that advertisers were linking their own brand with such desired outcomes. Only one in ten (9.7%) of respondents perceived that advertisers were trying to get consumers to buy their particular brand. Most respondents (67.7%) disapproved of the kinds of messages that were being communicated to viewers. Some of the more frequently cited reasons for such disapproval included the following: advertisements are suggesting that alcohol is necessary for a good time (18.4%), negative effects of alcohol use are never shown (17.7%), such advertisements can influence adolescents in negative ways (15.6%), and advertisements for alcohol tend to be unrealistic (14.3%).

Ratings of alcohol advertisements along a number of dimensions revealed that, in general, such advertisements

were considered to be enjoyable (71.3%), interesting (70.1%) and persuasive (72.3%). On the other hand, they were viewed as being uninformative (79.4%), useless (76%), dishonest (73.1%) and unrealistic (80.8%). Respondents were somewhat more divided in rating the harmful nature of such advertising, with 23.8% rating them as harmless, 24.4% indicating that advertisements were neither harmful nor harmless, and 51.9% perceiving them to be harmful.

With respect to levels of alcohol consumption, the sample was comprised largely of non-drinkers or occasional drinkers (42.2%), and those who drink three or fewer alcoholic beverages in a typical week (32.5%). Ten percent of the sample reported having eight or more alcoholic beverages in an average week.

Finally, with a maximum possible score of 90, total scores on the Alcohol Expectancy Questionnaire (AEQ) ranged from 20 to 79, with an average score of 48.7. Higher scores represent generally positive expectations concerning the effects of alcohol, while lower scores reflect more negative beliefs about the effects of alcohol.

Although preliminary analyses included the seven subscale scores of the AEQ as separate variables, findings utilizing the total AEQ score best address the research questions of interest. That is, possible predictions concerning the specific areas represented by each of the

subscales are not addressed. As such, subsequent analyses relied upon total AEQ scores rather than subscale scores.

Table 1
Description of Participants' Responses to Survey Items

		(N=157)*
Sex	Females	76.4%
	Males	23.6%
Age	19-24	75.0%
	25-48	25.0%
	Mean	23.8
	SD	5.8
Slogan Matching Scores		
	0-5	42.7%
	6-10	37.0%
	11-15	14.0%
	16-20	5.7%
	21-25	0.6%
	Mean	6.8
	SD	5.0
Slogan Familiarity Scores		
	below 30	14.0%
	31-45	31.2%
	46-60	42.1%
	above 60	12.7%
	Range	14-70
	Mean	46.2
	SD	13.0
Types of Thoughts Elicited by Advertisements		
	Positive	45.4%
	Neutral	31.6%
	Negative	23.0%

Table 1 (continued)

Perceived Advertising Messages	
Associate drinking & the good life	57.1%
Associate a brand & the good life	20.8%
Buy this brand	9.7%
Other	12.4%
Approval of Advertising Messages	
Disapprove	67.7%
Neutral	20.4%
Approve	11.9%
Ratings	
Informative	5.1%
Useful	5.8%
Honest	2.5%
Enjoyable	71.3%
Interesting	70.1%
Harmless	23.8%
Realistic	5.1%
Persuasive	72.3%
Consumption of Alcoholic Beverages/Week	
None	42.2%
1-3	32.5%
More than 3	25.3
Mean	2.4
SD	3.1
AEQ Scores	
Mean	48.7
SD	12.3

* The number of missing cases per item was typically less than 5%.

Findings Concerning Hypotheses

Hypothesis 1: Cognitive responses to alcohol advertisements will be positively related to alcohol expectancies.

A number of cognitive response variables were positively related to alcohol expectancy scores. As shown in Table 2, several Pearson Correlation coefficients reached statistical significance, but were generally modest, ranging from .13 (honesty rating) to .24 (approval of messages) and .27 (total rating score).

An analysis of variance with AEQ scores as the dependent variable and types of thoughts concerning advertisements as the independent variable was not statistically significant ($F=1.95$, $p=.146$). However, the trend in average AEQ scores was in the expected direction. That is, those with positive thoughts concerning advertising had higher average AEQ scores (50.31) (reflecting positive beliefs concerning the effects of drinking alcohol), than did those with more neutral thoughts (48.97) or negative thoughts (45.15).

Table 2
Relationship Between Cognitive Responses and Alcohol Expectancy Scores

Cognitive Response Variables	AEQ (Pearson Correlations)
Approval of Advertising Messages	.24**
Ratings of Advertisements	
Informative	.18**
Useful	.05
Honest	.13*
Enjoyable	.21**
Interesting	.22**
Harmless	.12
Realistic	.10
Persuasive	.15*
Total Ratings	.27***
Thoughts Concerning Advertising	(Means)
Positive	50.31
Descriptive/Neutral	48.97
Negative	45.15
	F=1.95, p=.146

*** p<.001
** p<.01
* p<.05

Hypothesis 2: Cognitive responses to alcohol advertisements will be positively related to alcohol consumption.

As Table 3 indicates, several cognitive response measures were significantly related to alcohol consumption. Specifically, approval of advertising messages was positively related to consumption (r=.45, p<.001), as were a number of ratings, ranging in magnitude from .14 to .27. Similarly, an analysis of variance with consumption as the

dependent variable and types of thoughts about advertisements as the independent variables was statistically significant ($F=5.95$, $p<.01$). That is, those who expressed negative thoughts about alcohol advertisements drank less than either those reporting positive or neutral thoughts, with little difference in consumption levels between the latter two groups.

Table 3
Relationship Between Cognitive Responses and Alcohol Consumption

Cognitive Response Variables	Consumption (Pearson Correlations)
Approval of Advertising Messages	.45***
Ratings	
Informative	.03
Useful	.27***
Honest	.22**
Enjoyable	.19**
Interesting	.14*
Harmless	.23**
Realistic	.26***
Persuasive	-.08
Total Rating	.27***
Thoughts Concerning Ads	(Means)
Positive	2.90
Descriptive/Neutral	2.87
Negative	.87
	F=5.95,p=.003

*** p<.001
** p<.01
* p<.05

Hypothesis 3: The positive relationship between cognitive responses and alcohol consumption will be influenced by the effects of alcohol expectancies.

In order to address this hypothesis, the sample was first divided into three approximately equal groups on the basis of their total AEQ scores. Scores for the low group ranged from 20 to 42, while scores for the middle and high groups ranged respectively from 43 to 55 and 57 to 79. Thus, the low AEQ group held generally negative beliefs about the consequences of drinking alcohol. The high AEQ group, in contrast, believed that drinking alcohol results in mostly positive consequences. The mid-range group was somewhat more neutral in their expectations surrounding the use of alcohol.

As shown in Table 4, the degree of relationship between cognitive response measures and alcohol consumption appears to be influenced by alcohol expectancies. For the group scoring low on the AEQ, a number of cognitive response measures were significantly related to consumption, including approval of advertising messages ($r=.52$, $p<.001$) and all rating scores with one exception. In contrast, for both the middle and high AEQ groups, the only variable to relate to consumption was approval of advertising messages ($r=.34$ and $r=.37$, $p<.01$). In other words, the relationships between cognitive response measures and consumption hold

only for those individuals who believe that the effects of drinking are generally negative.

An analysis of variance with consumption as the dependent variable revealed that although both main effects of thought type ($F=4.65$, $p=.01$) and AEQ ($F=6.36$, $p=.02$) were significant, the interaction effect was only marginally significant ($F=2.17$, $p=.08$). This finding suggests that consumption level patterns for those with different types of thoughts about advertising are not entirely consistent across AEQ scores. Specifically, it seems that for individuals with positive or neutral thoughts about advertisements, consumption levels increase as AEQ scores increase. For those with negative thoughts, consumption levels remain relatively constant across AEQ levels.

Table 4
Relationship Between Cognitive Responses, Alcohol Consumption, and Alcohol Expectancies

Cognitive Response Variables	Consumption (Pearson Correlations)		
	Low AEQ (N=45)	**Mid AEQ** (N=61)	**High AEQ** (N=51)
Approval	.52***	.34**	.37**
Ratings			
Informative	.00	-.02	.01
Useful	.65***	.14	.10
Honest	.37**	.12	.10
Enjoyable	.35**	.13	.07
Interesting	.26*	.06	.02
Harmless	.52***	.11	.09
Realistic	.51***	.05	.13
Persuasive	-.35**	-.19	.14
Total Rating	.51***	.10	.14

*** p<.001
** p<.01
* p<.05

Hypothesis 4: The relationship between familiarity with alcohol advertisements and alcohol expectancies will be influenced by cognitive responses.

As Table 5 suggests, the positive relationship between familiarity with alcohol advertisements and AEQ scores was significant ($r=.25$, $p<.001$). Furthermore, this relationship appears to be influenced by the types of thoughts subjects report concerning alcohol advertisements. Only those with positive thoughts demonstrated a relationship between familiarity and AEQ scores ($r=.30$, $p<.01$). As well, those with positive, neutral and negative thoughts differed in

their familiarity with advertisement ($F=7.6$, $p<.001$). Specifically, those with positive thoughts were most familiar with advertisements (mean=8.1), followed by those with neutral thoughts (6.7) and those with negative thoughts (4.2). However, the interaction effect between type of thought and AEQ was not statistically significant.

When broken down by total rating scores, correlations between familiarity with advertisements and AEQ scores remained relatively constant. However, only those with high ratings demonstrated a statistically significant relationship between familiarity and AEQ scores ($r=.23$, $p<.05$). An analysis of variance with familiarity as the dependent variable demonstrated no significant interaction effect between ratings and AEQ scores, but adequate numbers of subjects were not available in each cell, making this finding unreliable.

Table 5
Relationship Between Familiarity with Advertisements, Alcohol Expectancies and Cognitive Responses

	AEQ (Pearson Correlations)	(Means)
Familiarity	.25***	6.8
Familiarity by Thoughts		
Positive	.30*	8.1
Descriptive/Neutral	.20	6.6
Negative	.02	4.0
		F=7.6,p=.001
Familiarity by Ratings		
High	.23*	9.1
Middle	.15	6.8
Low	.18	4.6
		F=8.9,p=.001

** p<.01
* p<.05

Hypothesis 5: The relationship between familiarity with alcohol advertisements and alcohol consumption will be influenced by cognitive responses.

A positive relationship between familiarity with alcohol advertisement and alcohol consumption was found ($r=.43$, $p<.001$), and this relationship was influenced to some degree by cognitive response measures (see Table 6). The strength of this relationship decreased as the types of thoughts about advertisements became more negative. That is, for those with positive thoughts, familiarity and consumption were more highly correlated ($r=.40$, $p<.001$) than for those with negative thoughts ($r=.34$, $p<.01$). Similarly, those subjects whose overall ratings of advertisements were

high demonstrated a stronger relationship between familiarity with advertisements and consumption ($r=.48$, $p<.001$) than did those with low rating scores ($r=.30$, $p<.05$).

An analysis of variance with consumption as the dependent variable showed no significant interaction between ratings and AEQ, or between thought type and AEQ.

Table 6
Relationship Between Familiarity with Advertisements, Alcohol Consumption and Cognitive Responses

	Consumption (Pearson Correlations)
Familiarity	.43***
Familiarity by Thoughts	
Positive	.40***
Descriptive/Neutral	.39**
Negative	.34*
Familiarity by Ratings	
High	.48***
Middle	.32**
Low	.30*

*** $p<.001$
** $p<.01$
* $p<.05$

V. Discussion

One of the general findings of particular interest in this study concerns the relatively poor performance by participants on the slogan and brand matching task. Few subjects were able to supply the correct brand name for more than 1 or 2 slogans. This finding suggests that viewers do not have available brand information subsequent to seeing advertisements. As suggested by Beattie and Mitchell (1985), individuals use different strategies in processing advertising information depending on their needs or goals. A brand processing strategy involves actively processing product information with a goal of forming an evaluation of a particular brand. A non-brand processing strategy, on the other hand, is used when the primary goal is other than evaluation, usually one of enjoyment or entertainment. In this case, little brand information is available.

As demonstrated by the slogan matching task in this study, subjects seem to be processing alcohol advertising information using a non-brand strategy with a goal of enjoyment and entertainment rather than product evaluation. Further support for this possibility stems from two additional findings. First, when asked to describe the messages being communicated by alcohol advertisements, over half of the sample perceived that drinking in general was being associated with a happy and good life. This compares with only 20.8% of respondents who felt that a particular

brand was being linked with the good life, and 9.7% who actually felt that advertisers wanted viewers to buy a particular brand of beer. Additional evidence for the use of a non-brand processing strategy is reflected in the ratings subjects gave to alcohol advertisements. Specifically, although almost three-quarters of all respondents found the advertisements to be enjoyable and interesting, very few indicated that they were informative (5.1%) or useful (5.8%).

Overall, the finding that viewers are processing limited brand information offers little support for advertisers whose goals may include switching brand loyalties among drinkers.

Another general finding of interest concerns the generally positive thoughts viewers report in response to alcohol advertising. While less than one-quarter of the sample indicated that advertisements elicited negative thoughts, two-thirds of respondents disapproved of the messages being portrayed. It appears that spontaneous thoughts generated by advertisements may be reflecting the entertainment or enjoyment value of the viewing experience. When asked to focus more directly on message information, viewers reactions change rather dramatically, as they perceive advertisements to be too one-sided and unrealistic. For researchers utilizing a cognitive response perspective, this finding suggests that thoughts reported in response to

very general, open-ended questions may yield significantly different information than those reported in response to more specific items.

The five hypotheses addressed in this study considered relationships among cognitive response variables, familiarity with advertisements, alcohol consumption and alcohol expectancies. Below is a discussion of the findings reflecting each of these hypotheses.

First, a number of cognitive response variables including approval of messages and ratings of advertisements were positively related to alcohol expectancies. Although correlations were generally modest, this finding provides some indication that the manner by which advertising information is processed and our beliefs concerning the effects of alcohol are related. Similarly, individuals with more positive thoughts elicited by advertisements had higher average alcohol expectancy scores than those with neutral and negative thoughts. Although this latter fining failed to reach statistical significance, it suggests that beliefs about alcohol and thoughts about advertising are not independent.

With respect to hypotheses two and three, a number of cognitive response variables were significantly related to alcohol consumption, and more importantly, those relationships were influenced by alcohol expectancies. Higher consumption levels were associated with stronger

approval of advertising messages across all expectancy levels. However, several advertising ratings were significantly related to consumption only for individuals who scored low on alcohol expectancies, believing that alcohol has generally negative effects. For individuals who held more positive beliefs about the effects of alcohol, ratings of advertisements were unrelated to consumption. As well, consumption levels for those with different types of thoughts elicited by advertisements were not entirely consistent across alcohol expectancy levels.

Taken together, the findings concerning hypotheses two and three indicate that while cognitive responses to advertisements and alcohol consumption are related, they are not independent of the effects of alcohol expectancies. One model of advertising effects proposed by Olson, Toy and Dover (1982) offers a possible interpretation of this finding. The model considers both cognitive responses and cognitive structures, such as beliefs, attitudes and behaviors, to be important in studying advertising effects. Specifically, the model assumes that cognitive responses mediate the effects of advertising on cognitive structures, but that their most direct impact is on beliefs. With respect to the present findings, this model would explain that cognitive responses to advertising are influencing expectancies or beliefs about alcohol effects, which ultimately influence drinking behavior. A looser

interpretation of the model as described by its authors would suggest that cognitive responses affect not only beliefs, but may mediate drinking behavior more directly. Although the present study cannot clarify the nature of the causal relationships proposed by this model, the findings do indicate that cognitive responses to advertising, alcohol expectancies and alcohol consumption are not independent.

The fourth hypothesis predicted that cognitive responses would influence relationships between familiarity with alcohol advertising and alcohol expectancies. Familiarity was indeed found to related to expectancies, and furthermore, when cognitive responses were considered, it became clear that this relationship held only for individuals with positive thoughts about advertising, and those giving the advertisements high ratings. It is not surprising that familiarity and expectancies would be most strongly related for those with positive thoughts about alcohol advertising. Again, although conclusions regarding causality cannot be made the model proposed by Olson, Toy and Dover (1982) would suggest that familiarity has its most direct effect on cognitive responses, which in turn have their effect on beliefs, in this case concerning alcohol effects.

Consistent with some previous findings relating advertising exposure with alcohol consumption, in the present study familiarity with advertising was moderately

related to consumption. In fact, familiarity with advertising accounted for 18.5% of the variance in consumption. As the fifth and final hypothesis predicted, this relationship was influenced to some extent by cognitive responses. The strongest relationship between familiarity and consumption held for those with positive thoughts and ratings concerning advertisements. Once again, the model discussed earlier would predict that familiarity directly influences cognitive responses which affect beliefs (hypothesis 4) and either via beliefs or more directly, influence behavior in the form of alcohol consumption.

Based on the findings concerning hypotheses four and five, there is some support for the position that while familiarity with advertising is related to both behavior (consumption) and beliefs (alcohol expectancies), the relationship is not a simple one. As predicted, viewers thoughts and reactions to advertisements were found to affect these relationships. The effect of this third set of variables, cognitive responses, may explain in part the inconsistent findings that have previously been reported regarding the relationship between advertising exposure and alcohol consumption. Unless the viewer is considered to be an active information processor with different interpretations of and reactions to advertising information, such findings will continue to be inconsistent, and will

present an overly simplistic picture of the effects of alcohol advertising.

Conclusion and Implications

Looking at the findings of this study from a broad perspective, and considering all of the factors that ultimately impact alcohol consumption and expectancies, it is significant that familiarity with advertising and cognitive responses to advertising relate as strongly as they do to these two variables. Although advertising is clearly not the only variable to impact alcohol-related beliefs and behaviors, the results of this study suggest that it certainly warrants further investigation as a potential contributor to such beliefs and behaviors. Importantly, however, the study of alcohol advertising effects must consider recipients of these communications to be active information processors who respond in unique ways to messages with which they are confronted.

The findings of the present study offer theoretical, empirical and practical implications. From a theoretical perspective, this research introduced a unique framework to the study of alcohol advertising effects. Specifically, alcohol advertising effects were addressed from a cognitive response and information-processing orientation. To date, such a framework has been rather neglected by alcohol advertising researchers.

With respect to empirical findings in the area, this study has contributed in at least two ways. First, little information is currently available concerning viewers' responses to alcohol advertisements. This study has provided some clarification of how viewers react to advertising information and how such messages are interpreted. Secondly, the findings have demonstrated relationships between viewers' responses to advertisements and their expectations concerning the effects of alcohol as well as their actual consumption of the product.

Finally, from a practical perspective, the findings of this research are potentially interesting for several reasons. From the perspective of the alcoholic beverage industry, this study reveals that, in general, viewers of alcohol advertisements retain little brand information. If the goals of the industry include achieving brand loyalty or brand switching through their advertising, the strategies they employ in this regard may be of questionable value.

Those responsible for developing advertising regulations may be interested in observing the influence of cognitive responses to advertisements on alcohol expectancies and alcohol consumption. This finding, which requires further investigation, suggests that restrictions imposed upon advertising content or volume are inadequate in controlling potentially negative consequences of alcohol advertising. Instead, regulations should be based on future

research efforts which clarify the interpretations, elaborations and meanings that recipients impose upon advertising communications. Furthermore, the influence of these recipient-generated responses on both alcohol consumption and expectancies should be considered in contemplating regulatory measures.

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Appendix A

Survey Instrument

Instructions

The purpose of the following survey is to gain some information about your opinions and attitudes toward television advertising for alcoholic beverages, as well as your views about some of the effects of drinking alcohol.

The questionnaire is made up of two parts. Please complete both parts, but you may leave blank any questions that you do not want to answer. Do not put your name on the questionnaire. Your responses are entirely anonymous and confidential.

Your cooperation in helping with this study is greatly appreciated.

Part A: Alcohol Advertising Survey

1. Following is a list of some slogans that have been used to advertise alcoholic beverage products. Please indicate how familiar you are with each slogan. Also, please try to identify the specific brand of the beverage with which the slogan has been associated. For example, if the slogan "This Bud's for you" is very familiar to you, you would circle the number "5" on the scale beside that slogan. If you think that slogan was used to advertise the Budweiser brand, write Budweiser in the space provided. If you are not sure which brand a slogan has been associated with, but think you might know, please guess. If you have no idea at all, please leave the space blank.

Slogan	Never Heard of it				Very Familiar	Brand
Right out of the ice	1	2	3	4	5	_____
Silver bullet	1	2	3	4	5	_____
About as smooth as it gets	1	2	3	4	5	_____
The beer around here	1	2	3	4	5	_____
It doesn't get any better than this	1	2	3	4	5	_____
What beer's all about	1	2	3	4	5	_____
Cold gold	1	2	3	4	5	_____
It's what's inside that counts	1	2	3	4	5	_____
Lighten up now	1	2	3	4	5	_____
Tastes great, less filling	1	2	3	4	5	_____
The golden throat charmer	1	2	3	4	5	_____
The legend is black	1	2	3	4	5	_____
The easy drinking dry	1	2	3	4	5	_____
The evolution of beer	1	2	3	4	5	_____

2. In general, when you think about T.V. commercials that advertise alcoholic beverages, what kinds of thoughts come to mind? Please provide any ideas, images, descriptions, moods, feelings, etc. that you have about such T.V. commercials.

3. In your opinion, what is the message (or messages) that T.V. commercials for alcoholic beverages are trying to get across to viewers?

4. In general, would you say that you approve or disapprove of the kinds of messages that T.V. commercials for alcoholic beverages are trying to get across to viewers? (Please circle only one number)

Strongly Approve				Strongly Disapprove
5	4	3	2	1

Please explain why you approve or disapprove of these messages.

_____

_____

_____

_____

_____

_____

_____

5. In general, when you think about most T.V. commercials for alcoholic beverages, how would you rate them on each of the following scales? (Please circle only one number for each scale)

informative	5	4	3	2	1 non-informative
useful	5	4	3	2	1 useless
honest	5	4	3	2	1 dishonest
enjoyable	5	4	3	2	1 unenjoyable
interesting	5	4	3	2	1 boring
harmful	5	4	3	2	1 harmless
realistic	5	4	3	2	1 unrealistic
persuasive	5	4	3	2	1 not persuasive

6. What is your age? _____

7. What is your gender? _____Male _____Female

8. How much of these alcoholic beverages do you usually drink in one week (including weekends)? (Please check the appropriate category in each line)

	None	1-2	3-4	5-6	7-8	9-10	Over 10
Beer (Bottles/Cans)	___	___	___	___	___	___	___
Wine (Glasses)	___	___	___	___	___	___	___
Liquor (Drinks)	___	___	___	___	___	___	___

Please turn the page and continue with Part B.

Part B: Alcohol Expectancy Questionnaire

Please read the statements on the following pages about the effects of alcohol. If you think the statement is true or mostly true, then mark "True". If you think the statement is false or mostly false, then mark "False". When the statements refer to "drinking alcohol", you may think in terms of any alcoholic beverage such as beer, wine or liquor. Whether or not you have had actual drinking experience yourself, you are to answer in terms of how you think alcohol affects the typical or average drinker. There are no right or wrong answers.

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True	False	
____	____	1. Drinking alcohol makes a person feel good and happy.
____	____	2. Alcohol makes sexual experiences easier and more enjoyable.
____	____	3. Drinking alcohol can get rid of physical pain.
____	____	4. People are likely to break and destroy things when they are drinking alcohol.
____	____	5. People become harder to get along with after they have a few drinks of alcohol.
____	____	6. Drinking alcohol creates problems.
____	____	7. People feel sexier after a few alcoholic drinks.
____	____	8. It is easier to open up and talk about one's feelings after a few drinks of alcohol.
____	____	9. A person can talk with people of the opposite sex better after a few drinks of alcohol.
____	____	10. Drinking alcohol makes a bad impression on others.
____	____	11. People drive better after a few drinks of alcohol.
____	____	12. Drinking alcohol can keep a person's mind off his/her problems at home.
____	____	13. Teenagers drink alcohol in order to get attention.
____	____	14. It is hard to reason with a person who has been drinking alcohol.
____	____	15. Parties are not as much fun if people are drinking alcohol.
____	____	16. People are more creative and imaginative when they drink alcohol.
____	____	17. People feel more caring and giving after a few drinks of alcohol.
____	____	18. Drinking alcohol makes it easier to be with others and, in general, makes the world seem like a nicer place.
____	____	19. It is easier to play sports after a few drinks of alcohol.
____	____	20. Drinking alcohol makes the future seem brighter.
____	____	21. A person can do things better after a few drinks of alcohol.
____	____	22. Drinking alcohol makes people more friendly.
____	____	23. A person may have a few drinks of alcohol in order to be part of the group.

True	False		
___	___	24.	When drinking alcohol, people are more likely to insult and make fun of others.
___	___	25.	People are more sure of themselves when they are drinking alcohol.
___	___	26.	When drinking alcohol, people do not feel in control of their behavior; they are more likely to do something that they do not want to do.
___	___	27.	Drinking alcohol makes people feel more interesting.
___	___	28.	Drinking alcohol is O.K. because it allows people to join in with others who are having fun.
___	___	29.	Drinking alcohol makes a person happier with himself/herself.
___	___	30.	When talking with people, words come to mind easier after a few drinks of alcohol.
___	___	31.	People feel powerful when they drink alcohol, as if they can get others to do what they want.
___	___	32.	Drinking alcohol makes people worry less.
___	___	33.	People drink alcohol because it gives them a neat, thrilling, high feeling.
___	___	34.	Drinking alcohol makes people feel more alert.
___	___	35.	Alcohol increases arousal; it makes people feel stronger and more powerful and makes it easier to fight.
___	___	36.	Sweet alcoholic drinks taste good.
___	___	37.	A few alcoholic drinks make people feel less shy.
___	___	38.	Drinking alcohol makes men more aggressive or pushy.
___	___	39.	After a few alcoholic drinks, people are less aware of what is going on around them.
___	___	40.	Most alcoholic drinks taste good.
___	___	41.	Most people think better after a few drinks of alcohol.
___	___	42.	Alcohol helps people stand up to others.
___	___	43.	People do not worry as much about what other people think of them after a few drinks of alcohol.
___	___	44.	When drinking alcohol, people are more likely to be taken advantage of by others.
___	___	45.	People do not drive as well after a few drinks of alcohol.

True False

____ ____ 46. People understand things better when they are drinking alcohol.

____ ____ 47. Drinking alcohol gets rid of aches and pains.

____ ____ 48. People are likely to become careless after a few drinks of alcohol.

____ ____ 49. A person enjoys people of the opposite sex more after she/he has been drinking alcohol.

____ ____ 50. Drinking alcohol makes a person feel less uptight.

____ ____ 51. People act like better friends after a few drinks of alcohol.

____ ____ 52. Alcohol makes people feel more romantic.

____ ____ 53. Drinking alcohol makes a person more pleased with himself.herself.

____ ____ 54. Drinking alcohol loosens people up.

____ ____ 55. Drinking alcohol causes hangovers.

____ ____ 56. Most alcohol tastes terrible.

____ ____ 57. People do stupid, strange, or silly things when they drink alcohol.

____ ____ 58. Alcohol makes people more relaxed and less tense.

____ ____ 59. People laugh a lot and do silly or crazy things when they have been drinking.

____ ____ 60. Having a few drinks of alcohol is a nice way to enjoy holidays.

____ ____ 61. When drinking alcohol, people are more likely to take advantage of others.

____ ____ 62. It's fun to watch others act silly when they are drinking alcohol.

____ ____ 63. People drink when they have problems.

____ ____ 64. Drinking alcohol makes a person feel healthier.

____ ____ 65. People feel less alone when they drink alcohol.

____ ____ 66. People become dizzy and are likely to fall down when they drink alcohol.

____ ____ 67. Drinking alcohol makes a person feel close to people.

____ ____ 68. Teenagers drink alcohol because they feel forced to do so by their peers.

True False

___ ___ 69. Alcohol changes people's personalities.

___ ___ 70. People often have trouble remembering what they did while they were drinking alcohol.

___ ___ 71. A few drinks of alcohol makes it easier to talk with people.

___ ___ 72. People can control their anger better when they are drinking alcohol.

___ ___ 73. People have stronger feelings when they are drinking alcohol.

___ ___ 74. Alcoholic beverages make parties more fun.

___ ___ 75. Drinking alcohol does not get rid of problems, it just pushes them aside.

___ ___ 76. Alcohol makes people better lovers.

___ ___ 77. People don't feel so alone when they drink alcohol.

___ ___ 78. After drinking alcohol, a person may lose control and run into things.

___ ___ 79. Drinking alcohol gets rid of a person's feelings that he/she is not as good as other people.

___ ___ 80. Drinking alcohol relaxes people.

___ ___ 81. Drinking alcohol allows people to be in any mood they want to be in.

___ ___ 82. People become loud and noisy when they drink alcohol.

___ ___ 83. Drinking alcohol can keep a person's mind off his/her mistakes at school.

___ ___ 84. It is easier to speak in front of a group of people after a few drinks of alcohol.

___ ___ 85. People get in better moods after a few drinks of alcohol.

___ ___ 86. Drinking alcohol helps teenagers to do their homework.

___ ___ 87. Drinking alcohol leads students not to do their homework.

___ ___ 88. Alcohol seems like magic.

___ ___ 89. People don't worry about the things they are in charge of when they are drinking alcohol.

___ ___ 90. People become more interested in people of the opposite sex after a few drinks of alcohol.

Thank-you for your participation!